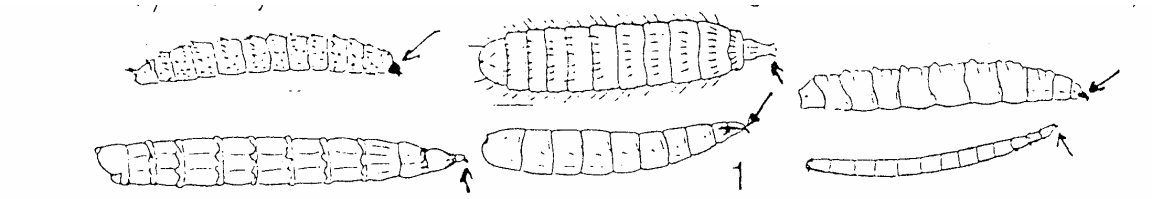
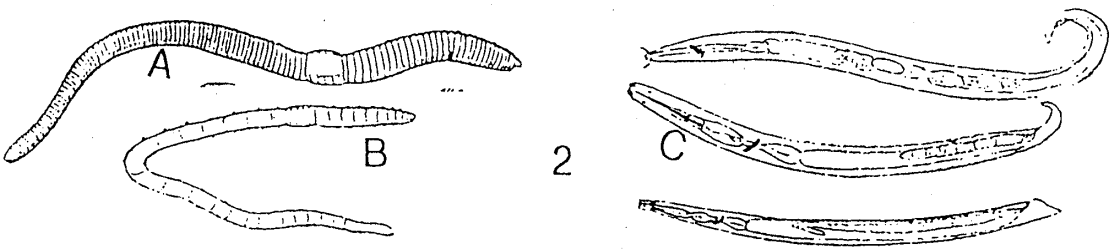
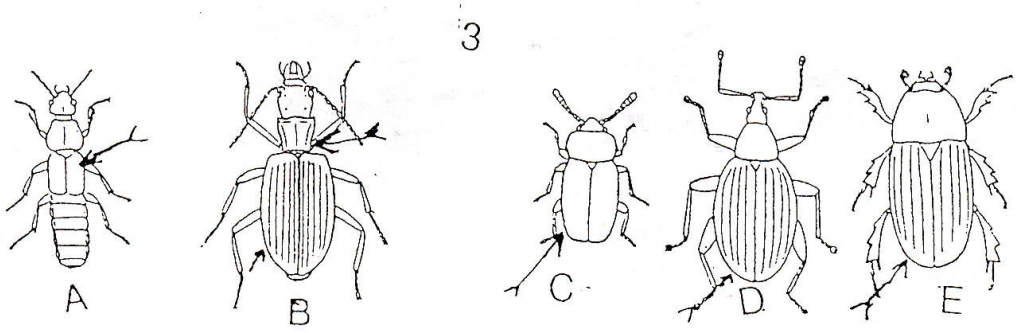
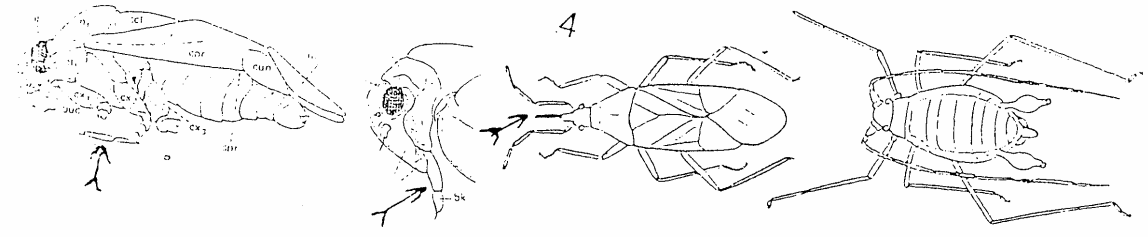
Key to Common Small Soil Animals

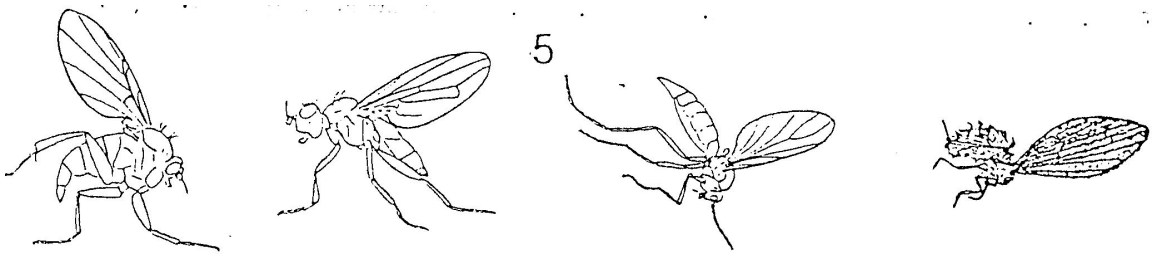
1	Body worm like without clear head, mouthparts or legs	**2**
1’	Body either not worm like or if so with clear legs, head of mouthparts (Figure 1)	**4**
	 1	
2	Body usually 1 cm. or longer, with clear segmentation (Fig. 2 A & B)	**3**
2’	Body less than 1 cm in length, without segmentation (Fig. 2 C)	**Nematode**
	 2	
3	Large (usually more than 2.5 cm.) pigmented, with relatively narrow segments (Figure 2A)	**Earthworms** (Oligochaeta, Lumbricida)
3’	Small, usually less than 2 cm., un-pigmented with relatively broad segments (Figure 2B)	**Pot worms** Oligochaeta (Enchytraeidae)
4	Legs absent (Figure 1)	**Fly larvae** (Diptera)
4’	Legs present although sometimes very small	**5**
5	Three pairs of legs	**6**
5’	More than three pairs of legs	**21**
6	Hard wing covers (Elytra) over part of posterior part of body (abdomen) (Figure 3) Beetles (Coleoptera)	**7**
6’	Such elytra absent	**9**

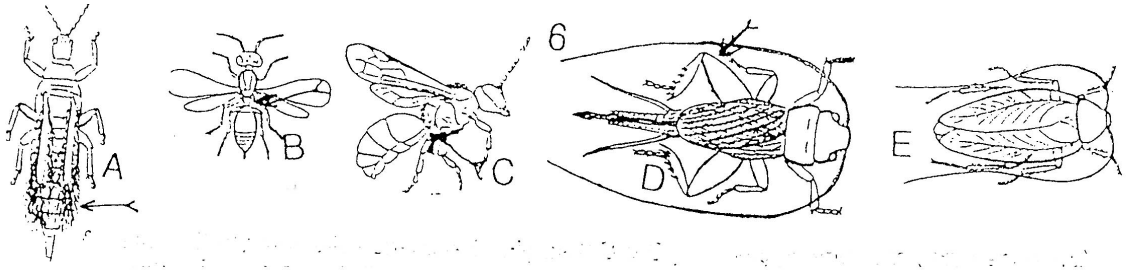
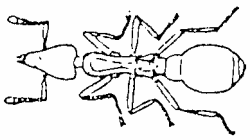


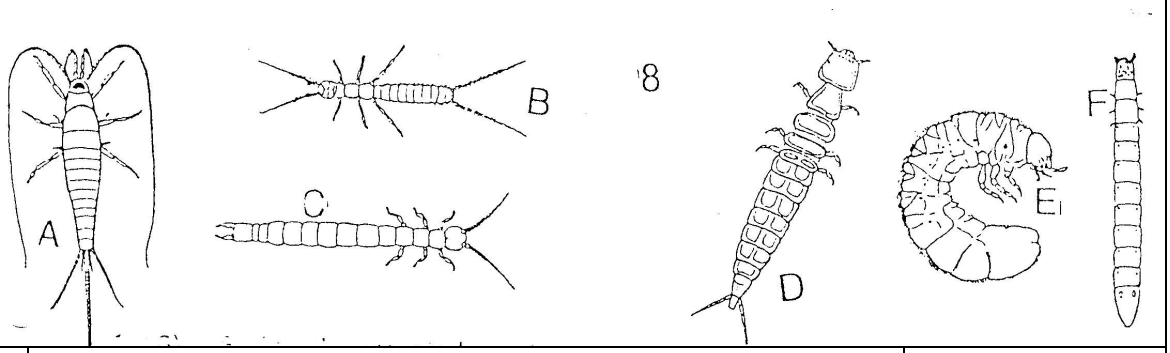
7	Elytra short, covering anterior 1/3 or less of the abdomen (Figure 3A)	**Staphylinidae**
7’	Elytra covering at least 2/3 of abdomen	**8**
8	Mid part of body (thorax) sharply narrower than abdomen (Figure 3 B)	**Adephaga**
8’	Mid part of body not or only gradually narrower than abdomen (Figure 3 C-E)	**Polyphagous families**
9	With wings	**10**
9’	Without wings	**16**
10	With sucking tubular mouthparts (Figure 4)	**Bugs** (Hemiptera & Homoptera)
10’	With chewing mouthparts	**11**



11	With 1 pair of wings (Figure 5)	**Flies** (Diptera)
11’	With 2 pairs of wings	**12**

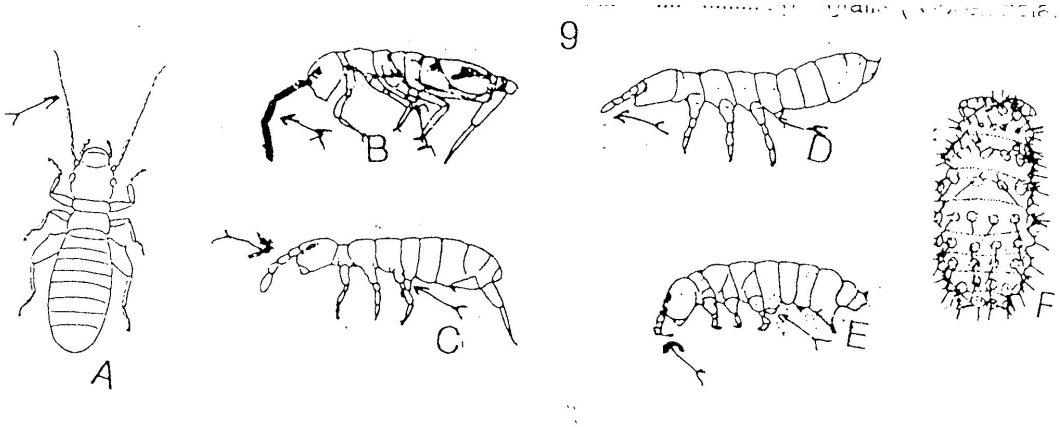


12	Wings with scales	**Moths** (Lepidoptera)
12’	Wings without scales	**13**
13	Wings feathered (Figure 6A)	**Thrips** (Thysanoptera)
13’	Wings not feathered (Figure 6 B-E)	**14**
 6		
14	Body medially constricted (Figure 6 B & C)	**Wasps** and **Ants** (Hymenoptera)
14’	Body not medially constricted (Figure 6 D & E)	**15**
15	Hind legs strikingly enlarged, body more or less cylindrical (Figure 6D)	**Crickets Grasshoppers** etc. (Orthoptera)
15’	Hind legs nit enlarges, body somewhat flattened (Figure 6 E)	**Roaches** (*Blattaria*)
16	Body medially constricted (Figure 7)	**Ants** (Hymenoptera Formicidae)
16’	Body not medially constricted	**17**
 7		
17	Body elongate and tapered, grub like or worm like (Figure 8)	**18**
17’	Body not elongate and tapered, worm like or grub like)	**20**



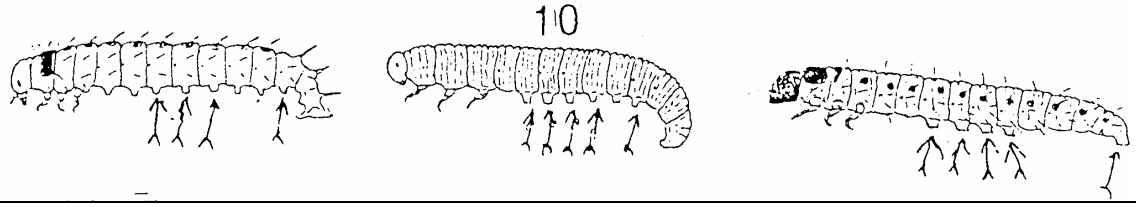
8

18	Body well pigmented with 3 long posterior projections (Figure 8A)	(Thysanura)
18’	Body with 2 or no posterior projections	**19**
19	White or pale yellow without hard parts or eyes, no visible mouthparts (Figure 8B & C)	(Diplura)
19’	Usually at least partly pigmented, mostly with eyes, usually with visible mouthparts (Figure 8 D – F)	**Beetle larvae** (Coleoptera)
20	Antennae with more than 10 segments, ventral tube absent (Figure 9A)	(Psocoptera)
20’	Antennae with 4 or 5 segments first abdominal segment with ventral tube (Figure 9 B-F)	**Springtails** (Collembola)

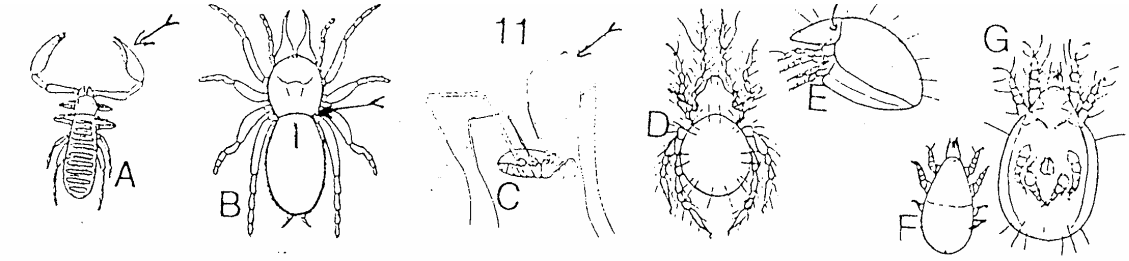
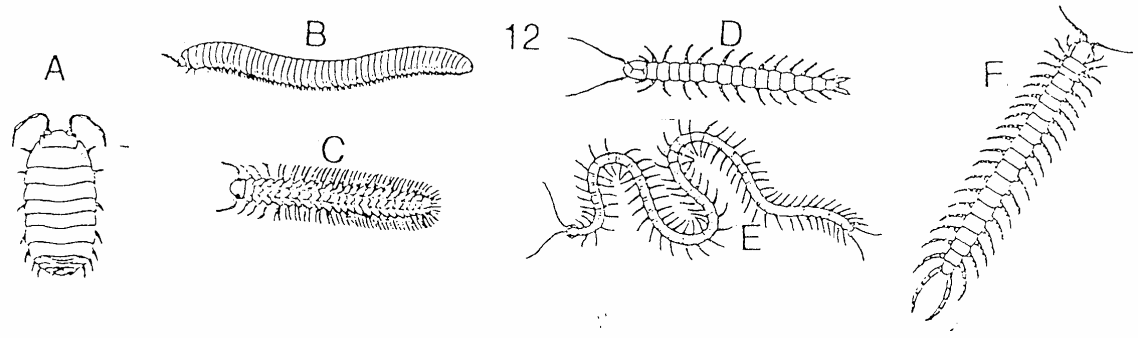


9

21	With 3 or more pairs posterior fleshy legs in addition to 3 pairs of anterior hard rigid legs (Figure 10)	**Insect larvae**, mostly Lepidoptera
21’	No fleshy legs present	**22**



10

22	Four pairs of legs (Figure 11)	**23**
22’	At least 6 pairs of legs present	**27**
		
23	With anterior crab like pincers (Figure 11A)	**Pseudoscorpions**
23’	Without such (Figure 11 B-F)	**24**
24	The part of the body bearing the legs (cephalothorax) separated from soft poster part (abdomen) by a sharp constriction (Figure 11B)	**Spiders** (Araneida)
24’	No such separation (Figure 11C-F)	**25**
25	With extremely long legs (Figure 11C) maximum length usually more than 6 mm	**Daddy Long Legs** (Phalangida)
25’	Legs not extremely long, maximum length less than 6 mm (**Mites**)	**26**
26	Body completely encased in hard shell (Figure 11 D & E)	**Oribatid mites**
26’	Body with some soft parts (Figure 11 F & G)	Misc. mite families
27	Body oval with underparts hidden from above (Figure 12A)	**Pill** and **Sow bugs** (Crustacea Isopoda)
27’	Body elongate and not oval (Figure 12 B-F)	**28**
		
28	Two Pairs of legs per body segment (Figure 12 B-C)	**Millipedes** (Diplopoda)
28’	One pair of legs per body segment (Figures 12 D-F)	**29**
29	Without eyes or pigment (Figure 12D)	(Symphyla)
29’	With eyes and usually with pigment (Figure 12 E & F)	**Centipedes** (Chilopoda)

Illustrations taken from Kevan Soil Zoology 1955